

REMARKS**1. Preliminary Matters****a. Status of the Claims**

Claims 1-4, 6-8, 10-14, 16, 17, and 19-22 are pending and under active consideration in this application. Claims 1-4, 6-8, 10-14, 16, 17, and 20-22 are canceled without prejudice to pursuing the canceled subject matter in a continuing application; claim 19 is amended; and claim 23-36 are new. Applicant respectfully requests entry of the amendments and remarks made herein into the file history of the application. Upon entry of the amendments, claims 19 and 23-36 will be pending and under active consideration.

b. Amendments to the Claims

Support for the amended claims can be found in the application as originally filed as described below in Table A.

Claim	Support
19	¶¶ 0031-0032, 0045, 0070-0073, and 0081-0093; Table 1; and Example 3
23	as described for amended claim 19
24	¶¶ 0031-0032; and Table 1
25	as described for amended claim 24
26	as described for amended claim 24
27	as described for amended claim 24
28	as described for amended claim 24
29	¶¶ 0031-0032, 0045, 0070-0073, and 0081-0093; Table 1; and Example 3
30	as described for amended claim 29
31	as described for amended claim 29
32	as described for amended claim 29
33	as described for amended claim 29
34	as described for amended claim 19
35	as described for amended claim 19
36	as described for amended claim 19

2. Restriction/Election

On pages 2-5 of the Office Action, the Examiner requires restriction of the claims under PCT Rule 13.1 to the following groups of inventions:

- I. Claims 1-3, 6, 7, 13, and 16, drawn to an oligonucleotide encoding the peptide of SEQ ID NO: 4 and a kit comprising the oligonucleotide.
- II. Claims 1-3, 6, 7, 13, and 16, drawn to an oligonucleotide encoding the peptide of SEQ ID NO: 5 and a kit comprising the oligonucleotide.
- III. Claims 1-3, 6, 7, 13, and 16, drawn to an oligonucleotide encoding the peptide of SEQ ID NO: 6 and a kit comprising the oligonucleotide.

- IV. Claims 4 and 14, drawn to an oligonucleotide encoding the peptide of SEQ ID NO: 4 and a second oligonucleotide comprising a second sequence found in a region from V β to C β of the TCR gene, and a kit comprising the oligonucleotides.
- V. Claims 4 and 14, drawn to an oligonucleotide encoding the peptide of SEQ ID NO: 5 and a second oligonucleotide comprising a second sequence found in a region from V β to C β of the TCR gene, and a kit comprising the oligonucleotides.
- VI. Claims 4 and 14, drawn to an oligonucleotide encoding the peptide of SEQ ID NO: 6 and a second oligonucleotide comprising a second sequence found in a region from V β to C β of the TCR gene, and a kit comprising the oligonucleotides.
- VII. Claims 8, 10-12, and 17, drawn to a method of detecting T cells or monitoring an autoimmune disease employing an oligonucleotide encoding the peptide of SEQ ID NO: 4.
- VIII. Claims 8, 10-12, and 17, drawn to a method of detecting T cells or monitoring an autoimmune disease employing an oligonucleotide encoding the peptide of SEQ ID NO: 5.
- IX. Claims 8, 10-12, and 17, drawn to a method of detecting T cells or monitoring an autoimmune disease employing an oligonucleotide encoding the peptide of SEQ ID NO: 6.
- X. Claims 19 and 20, drawn to a peptide vaccine of SEQ ID NO: 4, 5, or 6, or a specific combination thereof.
- XI. Claims 21 and 22, drawn to a method of treating an autoimmune disease employing a peptide vaccine of SEQ ID NO: 4, 5, or 6, or a specific combination thereof.

Applicant without traverse elects **Group X**. In view of electing this group, the Examiner has further required election of a specific peptide or combination of peptides. Applicant without traverse elects the peptide with **SEQ ID NO: 4**. Accordingly, Applicant has elected for examination claims related to a peptide with SEQ ID NO: 4 and a vaccine comprising the peptide, which are encompassed by claims 19 and 23-36.

Applicant submits that the claims related to the peptide with SEQ ID NO: 4 and the vaccine comprising this peptide satisfy the unity of invention requirement of PCT Rule 13, because these claims are related to a single invention. Unity of invention exists when there is a technical relationship among the claimed inventions that involve the same special technical feature—a feature that define a contribution which each of the inventions makes over the prior art. *M.P.E.P. § 1850.II*. Both the peptide and vaccine are related to a peptide comprising at least 4 consecutive nucleotides of SEQ ID NO: 4. Applicant submits that peptides comprising a sequence related to SEQ ID NO: 4 are both novel and require an inventive step, and therefore make a contribution over the prior art. In view of the foregoing, Applicant respectfully submits that the claimed subject matter has unity of invention and should therefore be examined.

3. Conclusion

Applicant respectfully submits that the instant application is in good and proper order for allowance and early notification to this effect is solicited. If, in the opinion of the Examiner, a telephone conference would expedite prosecution of the instant application, the Examiner is encouraged to call the undersigned at the number listed below.

Respectfully submitted,

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